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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,017	03/11/2004	Shun-chen Chang	JLINP177	7573

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EXAMINER

FERGUSON, MICHAEL P

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/799,017

Applicant(s)

CHANG ET AL.

Examiner

Michael P. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 and 7-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Marola (US 2,897,022).

As to claim 1, Marola discloses a coupling structure capable of use with a tandem motor, comprising:

two bearing sleeves **13** each formed with a groove;

a connector **7** having a first end and an opposed second end, the first end and the second end each formed with a groove;

a first elastic fastener **20** fit into the groove of the connector at the first end and received in the groove formed on one of the two bearing sleeve; and

a second elastic fastener **20** fit into the groove of the connector at the second end and received in the groove formed on the other bearing sleeve (Figures 1 and 2).

As to claim 2, Marola discloses a coupling structure wherein the grooves formed on the bearing sleeves **13** and the connector are ring-shaped (Figure 2).

As to claim 3, Marola discloses a coupling structure wherein the first and the second elastic fasteners **20** are ring-shaped (Figure 2).

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As to claim 4, Marola discloses a coupling structure wherein the first and the second elastic fasteners **20** are C-shaped retaining rings (Figure 2).

As to claim 5, Marola discloses a coupling structure wherein the material of the bearing sleeves **13** is selected from the group consisting of metal (cross-hatching; Figure 2) and engineering plastic.

As to claim 7, Marola discloses a coupling structure wherein the connector **7** is formed with a leading edge to create a guiding surface between the grooves (Figure 3).

As to claim 8, Marola discloses a coupling structure wherein the guiding surface is an inclined surface (Figure 3).

As to claim 9, Marola discloses a coupling structure capable of use with a tandem motor, comprising:

two bearing sleeves **13** each formed with a groove on its inner surface;

a connector **7** having a first end and an opposed second end, the first end and the second end each formed with a groove; and

two ring-shaped elastic fasteners **20**, each of which has an inner edge fit into the groove formed on the connector and an outer edge received in the groove formed on the bearing sleeves (Figures 1 and 2).

As to claim 10, Marola discloses a coupling structure wherein the grooves formed on the bearing sleeves **13** and the connector **7** are ring-shaped (Figure 2).

As to claim 11, Marola discloses a coupling structure wherein the material of the bearing sleeves **13** is selected from the group consisting of metal (cross-hatching; Figure 2) and engineering plastic.

As to claim 12, Marola discloses a coupling structure wherein the connector **7** is formed with a leading edge to create an guiding surface between the grooves (Figure 3).

As to claim 13, Marola discloses a coupling structure wherein the guiding surface is an inclined surface (Figure 3).

As to claim 14, Marola discloses a coupling structure capable of use with a tandem motor, comprising:

a first bearing sleeve **13** having one end formed with a connection part **7**, the connection part being formed with a groove in its outer surface;

a second bearing sleeve **13** formed with a groove on its inner surface; and

a ring-shaped elastic fastener **20** having an inner edge fit into the groove formed on the connection part of the first bearing sleeve and an outer edge received in the groove formed on the second bearing sleeve (Figures 1 and 2).

As to claim 15, Marola discloses a coupling structure wherein the connection part **7** is formed with a leading edge to create an inclined guiding surface (Figure 3).

As to claim 16, Marola discloses a coupling structure wherein the grooves formed on the bearing sleeves **13** and the connection **7** part are ring-shaped (Figure 2).

As to claim 17, Marola discloses a coupling structure wherein the ring-shaped elastic fastener **20** is a C-shaped retaining ring (Figure 2).

As to claim 18, Marola discloses a coupling structure wherein the first and second bearing sleeve **13** are made of metal (cross-hatching; Figure 2).

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3. Claims 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris (US 2,051,704).

As to claim 14, Harris discloses a coupling structure capable of use with a tandem motor, comprising:

a first bearing sleeve **16** having one end formed with a connection part, the connection part being formed with a groove in its outer surface;

a second bearing (supporting) sleeve **19** formed with a groove on its inner surface ; and

a ring-shaped elastic fastener **28** having an inner edge fit into the groove formed on the connection part of the first bearing sleeve and an outer edge received in the groove formed on the second bearing sleeve (Figures 1 and 2).

As to claim 15, Harris discloses a coupling structure wherein the connection part **16** is formed with a leading edge to create an inclined guiding surface (Figure 2).

As to claim 16, Harris discloses a coupling structure wherein the grooves formed on the bearing sleeves **16,19** and the connection part are ring-shaped (Figure 1).

As to claim 17, Harris discloses a coupling structure wherein the ring-shaped elastic fastener **28** is a C-shaped retaining ring (Figure 1).

As to claim 18, Harris discloses a coupling structure wherein the first and second bearing sleeve **16,19** are made of metal (cross-hatching; Figure 2).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marola.

As to claim 6, Marola fails to disclose a coupling structure wherein the bearing sleeves are copper sleeves.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a coupling structure as disclosed by Marola wherein the bearing sleeves are copper as such material is a well-known, widely used and commercially available material within the art.

As to claim 19, Marola fails to disclose a coupling structure wherein the first and second bearing sleeve are copper sleeves.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a coupling structure as disclosed by Marola wherein the bearing sleeves are copper as such material is a well-known, widely used and commercially available material within the art.

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As to claim 20, Marola fails to disclose a coupling structure wherein the first and second bearing sleeve are made of engineering plastics.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a coupling structure as disclosed by Marola wherein the bearing sleeves are engineering plastic as such material is a well-known, widely used and commercially available material within the art.

6. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris.

As to claim 19, Harris fails to disclose a coupling structure wherein the first and second bearing sleeve are copper sleeves.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a coupling structure as disclosed by Marola wherein the bearing sleeves are copper as such material is a well-known, widely used and commercially available material within the art.

As to claim 20, Harris fails to disclose a coupling structure wherein the first and second bearing sleeve are made of engineering plastics.



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The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a coupling structure as disclosed by Marola wherein the bearing sleeves are engineering plastic as such material is a well-known, widely used and commercially available material within the art.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patent shows the state of the art with respect to coupling structures:

Caldwell (US 3,750,489) is cited for pertaining to structures comprising a bearing sleeve having a groove, and a ring-shaped elastic fastener.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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